

Scientific-technical Conference on the
Application of Ultrasonics in Welding

S/046/60/006/01/30/033
B008/B011

Moskovskiy energeticheskiy institut (Moscow Institute of Power Economy). Furthermore, reports were made on other work done by various organizations in Moscow, Taganrog, and Saratov. The introductory speech was held by N. A. Ol'shanskiy, Candidate of Technical Sciences, with a survey of general problems. Various types of apparatus for ultrasonic cold welding were dealt with in lectures by L. A. Yerokhin, L. P. Batov, Yu. I. Kitaygorodskiy, and others. Factual suggestions on the application of the new method were made by B. V. Amosov, L. L. Silin, and V. A. Kuznetsov. L. M. Matsyuk, A. V. Mordvintseva, and N. A. Ol'shanskiy reported on the welding of plastics. The lecture by A. A. Yerokhin and L. L. Silin was the only one entirely devoted to the introduction of ultrasonic vibrations into the melt in electric welding. The lectures by G. F. Balandin and V. F. Kodolov, as well as L. F. Lependin, were devoted to the structural modification of the welding seam under the action of ultrasonics. A. V. Mordvintseva dealt with the problem of the change in mechanical properties of some welded joints treated with ultrasonics in a hardened state. Numerous discussions were held at the Conference.

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S/046/60/006/02/17/019
B014/B014

AUTHOR: Makarov, L. O.

TITLE: Bibliography

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 2, pp. 265-266

TEXT: This is a review of the collection "Primeneniye ultrazvuka v promyshlennosti" (Commercial Uses of Ultrasonic Waves), edited by V. F. Nozdrev, Doctor of Physical and Mathematical Sciences. Moscow, Mashgiz, 1959, 304 pages, 10 rubles and 25 kopecks. This collection contains 22 lectures delivered at the All-Union Conference on the Commercial Uses of Ultrasonic Waves which took place in Moscow in April, 1957. The following personalities are mentioned: L. M. Brekhovskikh, V. A. Krasil'nikov, L. D. Rozenberg; B. B. Kudryavtsev; D. S. Shrayber; Yu. V. Ponomarenko; M. G. Kogan, Yu. I. Kitaygorodskiy; Z. N. Bulycheva, Ye. I. Gurvich, Ya. P. Selisskiy; I. I. Golyamina; A. I. Markov; L. O. Makarov; M. G. Sirotyuk; Yu. B. Semennikov; B. N. Lyamin; M. M. Pisarevskiy, A. A. Klenov; P. Ye. D'yachenko, Yu. N. Mizrokhi, V. G. Aver'yanova; Kh. S. Bagdasarov; I. I. Teumin; N. A. Ol'shanskiy, A. V. Mordvintseva;

Card 1/2

Bibliography

S/046/60/006/02/17/019
B014/B014

I. N. Yermolov; N. V. Babkin; M. R. Gubanova; N. A. Grekov; N. N. Yegorov.



Card 2/2

1.2310

S/046/60/006/004/018/022
B019/B056

AUTHOR: ~~Makarov, L. O.~~

TITLE: A Simple Method for Ultrasonic Cold Welding

PERIODICAL: Akusticheskiy zhurnal, 1960, Vol. 6, No. 4, pp. 507 - 508

TEXT: A new device for ultrasonic cold welding is described. As shown by the figure, this device consists of an ultrasonic head 1, a semi-wave concentrator 2, the parts to be welded together 3 and 4, as well as the prism 5. The angle between the surfaces of the prism may be adapted to practical requirements. The main advantage offered by this device is the possible pressure exerted by the ultrasonic concentrator onto the material to be welded. By a power output of 250 watt it was possible to weld two aluminum foils having a thickness of 0.07 mm within 1 - 4 seconds. The parts to be welded could not be observed to stick to the concentrator and, in any case, this may be prevented by applying a coating of suitable media. M. G. Sirotiyuk (Ref. 1) is mentioned. There are 1 figure and 1 Soviet reference. ✓c

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A Simple Method for Ultrasonic Cold Welding S/046/60/006/004/018/022
B019/B056

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Institute of
Acoustics of the AS USSR, Moscow)

SUBMITTED: February 10, 1960

Card 2/2

20244

6,8000 (and 1063,1155)

S/046/61/007/001/015/015
B104/B204

AUTHOR: Makarov, L. O.

TITLE: All-Union Conference on Ultrasonics

PERIODICAL: Akusticheskiy zhurnal, v. 7, no. 1, 1961, 117-118

TEXT: On November 22, the Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu ul'trazvuka v promyshlenosti (All-Union Scientific and Technical Conference on the Application of Ultrasonics in Industry) was opened in the Tower Hall in the House of the Union in Moscow. It was attended by roughly 500 delegates from 13 Union Republics. The Deputy Chairman of the Gosudarstvennyy nauchno-tekhnicheskii komitet Soveta Ministrov SSSR (State Scientific- and technical Committee of the Council of Ministers, USSR), G. V. Aleksenko and Academician A. I. Berg opened the Conference. In the plenary session, lectures were held by Professor L. D. Rozenberg on "New Investigations on the Industrial Use of Ultrasonics". Engineer Yu. I. Kitaygorodskiy delivered the lecture entitled "Stage and Trend of Development of the Application of Ultrasonics in Machine Building". Candidate of Technical Sciences V. M. Fridman dealt with problems of the industrial application of

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All-Union Conference ...

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ultrasonics in chemical technology. Candidate of Technical Sciences A. B. Morozov lectured on "Main Problems of Producing Ultrasonic Power Sources". Candidate of Technical Sciences O. I. Babikov spoke about "The Development of Control Methods and Control Means Based upon the Use of Ultrasonics". The section "Application of Ultrasonics in Machine Building" was supervised by Yu. I. Kitavgorodskiy and N. A. Ol'shanskiy. Here, A. S. Bebchuk and L. D. Rozenberg spoke about purification by ultrasonics. V. I. Volodarskaya spoke about the development of apparatus, and I. V. Gushchik dealt with ultrasonic purification of wires, while A. I. Abrosov spoke about the purification of the components of clocks and watches. Ya. N. Lipkin and A. M. Sollok spoke about the application of anodic treatment, and A. I. Sobolev spoke about galvanization. B. F. Balandin, N. N. Rykalin, and L. L. Silin reported on ultrasonic welding and soldering. I. L. Glizburg et al. spoke about corresponding apparatus, and N. A. Ol'shanskiy, V. F. Zhelavskiy, Ye. P. Kalinin, and K. D. Zakharov spoke about technological investigations and applications. Ultrasonic welding of plastics was dealt with by A. V. Mordvintsev, V. V. Bogdashevskiy, and L. N. Matsuk. The use of ultrasonics in metallurgy was dealt with by I. I. Teumin, G. M. Pogodin-Alekseyev, G. I. Eskin, B. F. Balandin, and

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All-Union Conference ...

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L. K. Gushchin. The use of ultrasonics in mechanical working was dealt with by V. F. Kazantsev, V. Yu. Veroman, V. V. Kupfer, A. A. Voronin, and A. I. Markov. The section on the use of ultrasonics in processes of chemical technology was under the supervision of I. I. Salamatov and I. G. Mikhaylov. Here, most lectures dealt with the dispersion by means of ultrasonics. L. I. Kondakova and V. M. Fridman spoke about corresponding apparatus, V. A. Druchenko, V. M. Rusnchenko, M. N. Demin, and L. N. Korotkov dealt with the dispersion of dyes. Acceleration of the crystallization of potassium bitartrate was dealt with by G. N. Gasyuk. The effect produced by ultrasonics on the course of chemical processes was studied by M. S. Akutin, F. I. and L. A. Kukoz, M. N. Chizhikov, F. N. Makarova, S. P. Kirichenko, and V. F. Popov. Diffusion processes were dealt with by V. M. Fridman, M. Ye. Arkhangel'skiy, G. N. Pinus, B. G. Belov, Ye. G. Tokar', P. Ya. Yefremova, S. I. Bezzubova, G. N. Nasyuk, and A. I. Greshnev. In the section for ultrasonic power sources, which was under the supervision of D. B. Mondrus and I. M. Solomakhin, mainly the coagulation of aerosol and the process of drying was dealt with. The corresponding apparatus were dealt with by the lectures of V. P. Kurkin, B. D. Tartakovskiy, R. N. Shkolnikova, V. A. Veller, K. P. Troitskiy, Yu. Ya. Borisov, and B. F.

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All-Union Conference ...

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Podoshevnikov. Results obtained by their investigations were given by V. P. Kurkin, B. F. Podoshevnikov, M. L. Barlamov, Yu. Ya. Borisov, and T. I. Masnkova. The production of aerosol by means of ultrasonics was dealt with by O. K. Eknadiosyants, I. I. Malakhovskiy, N. K. Lopyrev, L. G. Shevaldyshev, A. M. Aksel'band and others. Furthermore, D. P. Mondrus, I. M. Solomakhin, N. A. Belousov, and G. S. Kratysh described some sound generators. N. A. Lebedev dealt with purification systems and N. I. Blitshteyn and B. G. Novitskiy dealt with devices for mechanical working by means of ultrasonics. Yu. I. Kitaygorodskiy, I. I. Teumin, N. A. Belousov, and V. A. Tuzlukova spoke about emitters from magnetostrictive materials, I. P. Golyamina dealt with ferrites and A. A. Anan'yeva, V. S. Bondarenko, and I. A. Glozman described new piezoelectric converters made from ceramics. Hydrodynamic emitters were described by B. G. Novitskiy, V. M. Fridman, P. S. Rokhlin, B. D. Tartakovskiy, and V. B. Chernyshev. The section "Ultrasonic Control and measuring devices" was under the supervision of L. D. Rozenberg and O. I. Babikov. Babikov, B. Ye. Mikhalev, and G. S. Roiz'-Mari dealt with the development of the circuits of ultrasonic measuring devices. The concentration measurement of solutions by means of ultrasonics was dealt with by G. I. Birger, N. I. Brazhnikov, that of gases by D. A. Gershgal.

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All-Union Conference ...

The viscosity test was dealt with by I. N. Kogan, the testing of elasticity parameters was dealt with by I. G. Mikhaylov and B. A. Kalugin. Level measurements by means of ultrasonics were dealt with by A. I. Broytman, N. V. Morozov, and M. N. Chizhikov. The measurement of liquid supply was dealt with by G. I. Sirger. Investigation of the properties of plastic liquids was dealt with by B. A. Belinskiy in a very interesting lecture. Measuring problems in investigations of ultrasonic fields were dealt with by Yu. Ye. Borisov, A. I. Abrosov, V. A. Kolmakov, Yu. L. Ben'kovich, N. M. Starobinskiy, and A. V. Vitkovskiy. Finally, lectures were held on measurement problems in the section for "Ultrasonic Power Sources" by L. D. Rozenberg, M. G. Sirotiyuk, I. G. Mikhaylov, and V. A. Shutilov. A total of 132 lectures were delivered; the final session took place on November 26. The merits of the organization committee, which was headed by V. A. Chernevich, were mentioned.

Card 5/5

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S, 04, 07, 007, 004, 007, 011
B133, B1

AUTHOR Makarov, L. O.

TITLE Theoretical study of some torsional vibrators

PERIODICAL: Akusticheskiy zhurnal, v. 7, no. 4, 1961, 400-404

TEXT. The author investigated the propagation of torsional waves in rods as well as the possibility of amplifying the torsional vibrations with respect to not only torsional angle but also shear amplitude. The results of this work may be applied in ultrasonic welding with torsional vibrations and in shear-aging and fatigue tests. Concentrator torsion rods are the most suitable for shear-amplitude amplification of torsional vibrations. It is interesting for the application of ultrasonic torsional vibrations to study the waveguide properties of hollow concentrator torsion rods. The waveguide torsion concentrators shown in Fig. 1 are studied. Calculation yielded that for longitudinal waves the acoustic entrance resistance of an exponential half-wave concentrator for torsional vibrations is $z_{en} = N^2 z_{load}$, where z_{load} denotes the total acoustic load. Care 1/4?

Theoretical study of some torsional

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5/045/01, 007, 004, 001, 001
B111/B10.

resistance $N_S = \sqrt{S_0/S_1}$ is the area coefficient, S_0 and S_1 respectively, are the entrance and exit cross sectional areas of the torsion concentrator. For a stepped torsion concentrator the formula reads $z_{01} = N_S^2 z_{01}$. When it is assumed that the concentrator is loaded with a definite purely active resistivity, r_{0-load} , which is uniformly distributed over the exit cross section, then the reflection coefficients can be calculated. These are characteristic of the kind of superposition of the incident and reflected waves. The load curve of a traveling wave looks exactly like the load curve of transverse vibrations. Conclusions: A stepped concentrator is more sensitive to variations in the reactive component of the load resistance. In the range of low load coefficients (from 0 to 1), the traveling-wave coefficient is greater for an exponential concentrator than for a stepped concentrator when their amplification factors are equal. In order to fasten torsion-rod systems as properly as possible one may use sound-conducting disks as supporting absorbers (Fig. 1). The calculation of these disks is presented in this paper. The author theoretically proves the possibility of creating torsion-rod

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B132, B102

Incipient study of some torsional ...

vibrational systems in which the elastic torsional vibrations propagate and are amplified, thus leading to an increased shear deformation. The described work has been carried out in 1957 in the laboratoriya ultrazvuka akusticheskogo instituta AN SSSR (Laboratory of Ultrasonics of the Institute of Acoustics AS SSSR). The author thanks L. D. Rozenberg for supervision, and V. F. Kazantsev and N. A. Rumilin for advice. There are 5 figures, 2 tables and 2 Soviet references.

Association: Akusticheskiy institut AN SSSR Moskva (Institute of Acoustics AS USSR Moscow)

Submitted: April 24, 1958

X.

Classified

MAKAROV, L.O.

PHASE I BOOK EXPLOITATION

SOV/6312

Rosenberg, L. D., V. F. Kazantsev, L. O. Makarov, and
D. P. Yakhimovich

Ul'trazvukovaya rezaniye (Ultrasonic Machining) Moscow, Izd-vo
AN SSSR, 1962. 251 p. Errata slip inserted. 5000 copies
printed.

Sponsoring Agency: Akademiya nauk SSSR. Akusticheskiy institut.

Resp. Eds.: V. I. Dikushin, Academician, and L. D. Rosenberg,
Doctor of Technical Sciences; Ed. of Publishing House:
L. V. Gessen; Tech. Ed.: A. P. Guseva.

PURPOSE: This book is intended for scientific workers, design
and process engineers, and for aspirants working in the
field of ultrasonic machining.

COVERAGE: Although the book is mostly based on results of in-
vestigations conducted by the authors in the ultrasonic labora-
tory of the Acoustics Institute, Academy of Sciences USSR, and

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Ultrasonic machining (Cont.)

SOV/6312

in the Special Design Bureau of Mosgorsovmashinost, an attempt is made to review, generalize, and sum up all available information, both Soviet and non-Soviet, on different aspects of ultrasonic machining. No personalities are mentioned. References accompany each chapter.

TABLE OF CONTENTS:

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Ch. I. Basic Information on Mechanical Vibrations and Waves	10
1. Vibrations in the simplest system	10
2. Propagation of elastic waves in liquids and gases	20
3. Propagation of elastic waves in solids	25

Card 2/6

L 23831-66 ENT(a)/ENT(m)/ENP(v)/ENP(t)/ENP(k)/ENP(h)/ENP(l) IJP(9) JD
 ACC NR: AF6007721 SOURCE CODE: UR/0413/66/000/003/0120/0121
 AUTHORS: Makarov, L. O.; Moshtner, B. Kh.; Nepirovskiy, L. E./ Yakhimovich, D. F.
 ORG: none 33
 TITLE: Device for ultrasonic machining. Class 49, No. 178665 16
 SOURCE: Izobreteniya, promyshlennyye obratoy, tovarnyye znaki, no. 3, 1966, 120-121
 TOPIC TAGS: ultrasonic machine tool, magnetostriction oscillator, ultrasonic machining
 ABSTRACT: This Author Certificate presents a device for ultrasonic machining. 16
 The apparatus contains an acoustic head with a concentrator and a magnetostriction transducer. To increase the productivity of the process, the mounting of the concentrator and magnetostriction transducer in the housing of the acoustic head is in the form of supporting resonance flanges of variable thickness, e.g., with uniformly increasing wall thickness from the center to the periphery (see Fig. 1).
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ACC NR: AP6007721

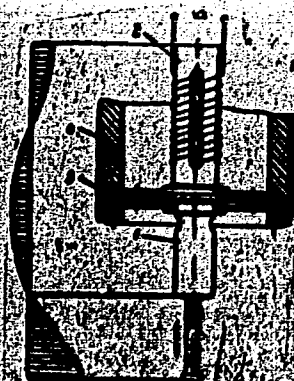


Fig. 1. 1 - concentrator;
2 - magnetostriction
transducer; 3 - resonance
flange; 4 - housing.

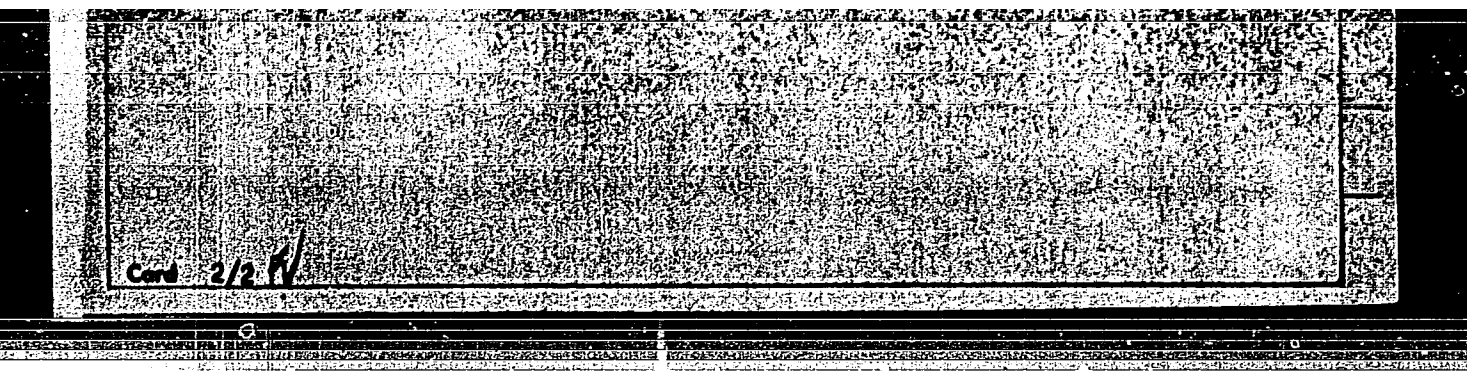
Design, art. base 1 diagram.

DATE: 11.18/

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APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001031510005-5"

TUSHKANOV, T.M.; MAKAROV, I.P., mashinist

From our practices of operating the cooler of the TEZ diesel locomotive under winter conditions. Elek.i tepl.tiaga 6 no.15-6 ca '62. (MIRA 15:1)

1. Mashinist-instruktor lokomotivnogo depa Archeda, Privolzhskoy dorogi (for Tushkanov). 2. Depo Liski Yugo-Vostochnoy dorogi (for Makarov).

(Diesel locomotives--Cold weather operation)
(Diesel engines--Cooling)

MIL'BERSHTAYN, Kh.I., MAKAROV, L.P.

Elimination of porosity in carbon electrodes used in the spectrum analysis of solutions. Zav.lab. 21 no.3:342-344 '55. (MLRA 8:6)

1. Institut khimii silikatov Akademii nauk SSSR.
(Spectrum analysis)

KHAR'KOVTSSEV, G.N.; MAKAROV, L.P.

Possibilities for the utilization of blast furnace slags. Stal'
22 no.4:376-378 Ap '62. (MIRA 15:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy
metallurgii.

(Blast furnaces) (Slag)

KHAR'KOVTSSEV, G.N.; MAKAROV, L.P.

Efficient way of establishing wholesale prices for blast
furnace slag. Sbor.trud.Otd. tekhn.-ekon. issl. TSNIIKHM no.
1:151-159 '63. (MIRA 17:6)

L. 20463-66 INT(a)/EXT(m) HW/CD/SH

ACC NR: AT5027938

SOURCE CODE: RU/0000/65/000/000/0226/0232

AUTHOR: Bogdanov, A. G.; Pirogov, Ya. A.; Makarov, L. P.

ORG: none

TITLE: Effective heat conductivity and thermal radiation capacity of gas-flame ceramic coatings

SOURCE: Seminar po zharetoykim pokrytiyam. Leningrad, 1964. Zharetoykiye pokrytiya (Heat-resistant coatings); trudy seminar. Leningrad, Izd-vo Nauka, 1965, 22-332

TOPIC TAGS: ceramic coating, heat conductivity, aluminum compound, zirconium compound, magnesium compound, titanium compound, steel, ceramic coating, thermal radiation/ St. 3 steel

ABSTRACT: A study was made of the effective heat conductivity and integral thermal radiation of Al_2O_3 , ZrO_2 , $Al_2O_3 \cdot MgO$, TiO_2 , and $ZrSiO_4$ coatings applied on plate and cylindrical steel St. 3 samples by gas-flame spraying. The thickness, taken as an average of 15-20 measurements made in various parts of the samples, was determined for coatings consisting of 0.6 mm Al_2O_3 , 0.07 mm ZrO_2 , 0.65 mm

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ACC NR: AT9027958

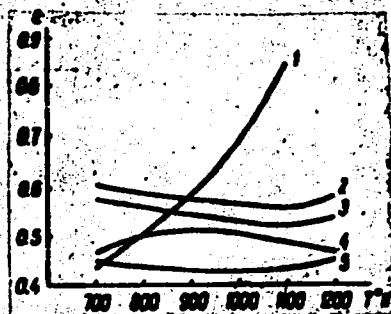
ZrO₂, 0.55 mm TiO₂, 0.55 mm Al₂O₃·MgO, and 0.55 mm Cr₂O₃, respectively. The effective heat conductivity of the coatings was measured in a vacuum of 10⁻⁵ mm Hg and in an Ar atmosphere (the heat conductivity of Ar is similar to that of air) at 300-900C and at a pressure of 100 and 300 mm Hg. The values of the heat conductivity coefficient (λ) were plotted in the graphs in λ vs temperature coordinates. The values obtained for λ were, on the average, 5-10 times smaller than those obtained for the same materials tested in the form of massive samples having a porosity of 20-30%. This was caused by the coating structure which formed under specific conditions of the gas-flame method: the layer of sprayed particles was not a homogeneous one, but consisted of irregularly superimposed particles containing numerous pores. A sharp decrease in effective heat conductivity was observed under decreased pressure because of the greater effect of the pores. The radiation heat exchange was predominant in the gas-flame oxide coatings at moderately high temperature (~1000C). Because the thermal contact resistances between the individual grains of the coating controlled the total heat transfer, the values of a specific thermal conductivity of the grains which was different in various materials, had little effect on the thermal conductivity of the samples. This was indicated by the fact that the curves of conductivity changes, plotted from coatings made of Al₂O₃, ZrO₂, Al₂O₃·MgO, TiO₂, and

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ZrSiO₄ had, during measuring in a high vacuum, a heat transfer of the same character and of about the same values inspite of the large differences in the thermal conductivity of these materials. The results of the determination of the integral conductivity of the coatings made from Cr₂O₃ (curve 1), Al₂O₃·MgO (curve 2), TiO₂ (curve 3), ZrSiO₄ (curve 4), and ZrO₂ (curve 5) are given in the attached figure. Orig. art. has: 5 fig. and 1 table.



SUB CODE: 11, 20/SUMM DATE: 20Jul65/ ORIG REF: 002/ OTH REF: 006

Card 3/3 LC

MAKAROV, L.P.

Methods of establishing wholesale prices for cast iron and
blast furnace ferroalloys. Sbor. trud. TSNIICHM no. 45:48-56 '65.
(MIRA 18:9)

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CIA-RDP86-00513R001031510005-5"

MAKAROV, L.S., 1920.

Selecting a section of ... 7.12.13 (1970, 13:8)
'65.

21
KATANCY, I.V., and Tech Sci —, "Formulation of the
and preparation of polymeric materials for coating."
Overglaze, 1954, 1, pp. 1-10. (In Russian.)
ing
KATANCY, I.V. and Tech Sci, 1954, 1, pp. 1-10.

30

MAKAROV, L.V.

Method for calculating hydrocyclones used for removing borings
from drilling muds. Izv. vys. ucheb. zav.; neft' i gaz 2 no.4:
35-40 '59. (MIRA 12:10)

1.Sverdlovskiy gornyy institut im. V.V. Vakhrusheva.
(Separators (Machines)) (Borings)

MAKAROV, L.V.

Method for studying the performance of hydrocyclones used for removing well-cuttings from drilling muds. Izv. vys. ucheb. zav.; neft' i gaz 2 no.6:39-42 '59. (MIRA 12:10)

1. Sverdlovskiy gornyy institut im. V.V. Vakhrusheva.
(Separators (Machines)) (Borings)

MAKAROV, L.V.

Method for controlling the performance of hydrocyclones used for
clay mud purification. Izv. vys. ucheb. zav.; neft' i gaz 2 no.10:
27-31 '59. (MIRA 13:2)

1.Sverdlovskiy gornyy institut im. V.V. Vakhrusheva.
(Oil well drilling fluids) (Separators (Machines))

MAKAROV, L.V.

Making drilling fluids from lumpy clays in hydraulic mixers. Izv.
vys. ucheb. zav.; neft' i gaz 3 no.9:33-37 '60. (MIRA 14:4)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva.
(Oil well drilling fluids)
(Mixing machinery)

MAKAROV, L.V.

Practice of using aerated muds to eliminate circulation losses in
drilling. Razved. i okh. nedr 27 no.10:33-36 0 '61. (MIRA 15:3)

1. Sverdlovskiy gornyy institut im. V.V.Vakhrusheva.
(Drilling fluids)

MAKAROV, L.V.

Using aerated muds to control circulation losses. Izv. vys. ucheb.
zav.; nef't' i gaz 4 no.11:29-33 '61. (MIRA 17:2)

1. Sverdlovskiy gornyy institut imeni V.V. Vakhrusheva.

MAKAROV, L.V. .

Electromechanical processing of clay muds. *Izv.vys.ucheb.zav.;*
neft' i gas 5 no.8:37-41 '62. (MIRA 17:3)

1. Sverdlovskiy gornyy insti m. V.V.Vakhrusheva.

MAKAROV, L.V.

Using electrochemical treatment of clay solutions for eliminating complications in drilling. Izv. vys. ucheb. zav.; geol. i razv. 7 no.2:127-131 F'64. (MIRA 17:2)

1. Sverdlovskiy gornyy institut im. V.V. Vakhrusheva.

MAKAROV, L.V.

~~MAKAROV, L.V.~~

Stability criteria of ship hulls in waves. 1971. 27 p.
neft' i gaz' no. 311-34 1971.

1. Sverkhlevnaya armirovaniye i t.d. i t.d.

MAKAROV, L.V.; IVACHEV, L.P.

Operation of drill pump using aerated circulation of fluid.
Razved. i okl. near. 30 no.3:31-33 Mr '64 (L.S. 2:1)

1. Sverdlovskiy gornyy institut.

1. The first part of the document is a list of the names of the persons who were present at the meeting.

2. The second part of the document is a list of the names of the persons who were present at the meeting.

MAKAROV, Leonid Vladimirovich

[Drilling fluids in core drilling] Promyshlennye zhid-
kosti v kolonkovom burenii. Moskva, Nedra, 1965. 63 ;.
(MIRA 18:6)

MAKAROV, M.

Regulating the fuel pumps of tractor diesels. Prof.-tekh.
obr. 18 no.12:19-21 D '61. (MIRA 14:12)
(Fire pumps)

MAKAROV, M.

Output of fishery products at the refrigeration plants could
be increased. Sov. torg. 36 no.10:22 0 '62. (MIRA 16:2)
(Fishery products)

MAKAROV, M.

Honoring the 43d anniversary of the Great October Revolution.
Mul.-elev. prom. 26 no. 11:1-3 N '60. (MIRA 13:11)

1. Zamestitel' predsedatelya Gosudarstvennogo komiteta Soveta
Ministrov SSSR po khleboproduktam.
(Grain--Storage) (Grain milling)

1. The first part of the document is a letter from the Director of the Central Intelligence Agency to the President of the United States.

2. The second part of the document is a letter from the Director of the Central Intelligence Agency to the Secretary of Defense.

3. The third part of the document is a letter from the Director of the Central Intelligence Agency to the Secretary of State.

4. The fourth part of the document is a letter from the Director of the Central Intelligence Agency to the Secretary of the Joint Chiefs of Staff.

5. The fifth part of the document is a letter from the Director of the Central Intelligence Agency to the Secretary of the Intelligence Community.

6. The sixth part of the document is a letter from the Director of the Central Intelligence Agency to the Secretary of the Intelligence Community.

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100

MAKAROV, M.

New tractors. Prof. tekhn. obr. 19 no. 4:13-16 Ap '66. (MIRA 15:4)
(Tractors—Design and construction)

MAKAROV, M., mayor

Rocket launching units are always ready to defend our country.
Komm.Voorush.Sil 2 no.13:53-55 J1 '62. (MIRA 15:7)
(Rockets (Ordnance))

L 42936-66 ARG/EWT(d)/FBO/EWP(g)/EWP(h) DE/NW
ACC NR: AN6009143 (A) SOURCE CODE: UR/9008/65/000/281/0001/0001

AUTHOR: Makarov, M. (Major)

ORG: none

TITLE: Training a missile subunit in simulated firing against aerial targets

SOURCE: Krasnaya zvezda, ^{no. 281,} 30 Nov 65, p. 1, col. 4-7

TOPIC TAGS: specialized training, guided missile training, training procedure,
military tactic, *AERIAL TARGET*

ABSTRACT: The article deals with the training of a missile subunit in vectoring
missiles and simulated firing against aerial targets flying at various altitudes. Sim-
ulated firing exercises are carried out on a trainer and against fighter airplanes.
The procedures of crew members in target seeking, vectoring missiles against
detected aerial targets, simulated firing, and other training procedures are analyzed.
[NT]

SUB CODE: 15/ SUBM DATE: none/

Card 1/1 MLP

MAKAROV, M.A., prof.; SOLOV'YEV, S.I.

Agar-tissue preparation for the stimulation of animal fattening.
Zhivotnovodstvo 24 no.9:35-36 S '62. (MIRA 15:12)

1. Vorneshakiy sel'skokhozyaystvennyy institut. (for Makarov).
2. Direktor Voronezhskoy oblastnoy veterinarnoy laboratorii (for Solov'yev).
(Agar) (Stock and stockbreeding) (Tissue extracts)

MAKAROV, M.A., inzh.

▲ KUT-3,0 feed spreader. Trakt. i sel'khoz mash. 31 [i.e. 32] no. 11:36
N '62. (MIRA 15:12)
(Feeding and feeding stuffs) (Agricultural machinery)

MAKAROV, M.A., inzh.

The IKS-5,0 root crop grinder. Trakt. i sel'khoz mash. 33 no.4:35
Ap '63. (MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokho-
zyaystvennogo mashinostroyeniya.
(Feed grinders)

MAKAROV, M.A., prof.

Use of tissue preparations for increasing the reproductive ability of animals and for keeping young animals in good health. Veterinariia 39 no.10:57-60 0 '62. (MIRA 16:6)

1. Voronezhskiy sel'skokhozyaystvennyy institut.
(Tissue extracts)
(Veterinary medicine)

POTAP'YEVSKIY, A.G.; KORITSKIY, V.A.; Prinimali uchastiye: KACHEV, V.S.;
MAKAROV, M.D.; VAYSHTEYN, A.D.; KULIKOV, N.N.; SHCHUKAYA, I.V.;
PAKHAL, S.A.; FEDOTOVA, L.P.; TATARINOV, G.V.

Ob-458m attachment for welding in CO₂ using PS-300, PSO-300,
and PS-500 transformers. Avton.svar. 15 no.10:68-70
O '62. (MIL. 15:11)

(Electric welding—Equipment and supplies)

LEBEDEV, V. K.; KORITSKIY, V. A.; SIDORENKO, M. N.; MAKAROV, M. D.

New transformers for manual arc welding. Avtom. svar. 15
no.11:51-55 N '62. (MIRA 15:10)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki
imeni Ye. O. Patona AN UkrSSR.

(Electric welding—Equipment and supplies)

SKUL'SKIY, Yu.V.; MAKAROV, M.D.; POPOV, A.N.; KNOKHLOV, P.L.; SOBOLEV, N.T.

Cast and welded flanged cast-iron pipe. Avtom.svar. 1965-
59 N '65.

1. Institut elektrosvarki im. Ye.O.Patona AN UkrSSR (for
Skul'skiy, Makarov, Popov). 2. Makeyevskiy truboliteynny
zavod im. Kuybysheva (for Knokhlov, Sobolev). Submitted
March 24, 1965.

MAKOV, M.S.

Variable device for analyzing cement mix. Patent No. 1511
1974.

1. Zubryakovskiy tsenentnyy zavod.

MAKAROV, M.M.

Supplementary information on the use of the immersion method.
Trudy Inst.min.resur. AN URSR no.2:53-58 '60. (MIRA 15:5)
(Minerals—Optical properties)

CHIRNO, S.D., inzh.; MAYSKIY, N.I., inzh.; MAYSKIY, N.I.,
inzh.; TOCHILINA, L.V., rec.; KUKHAR, K.F., inzh.

(Principles of electrical engineering and the electrical
equipment of tractors, combines, and automobiles.)
Osnovy elektrotekhniki i elektricheskoy apparatury
kombainov i avtomobilei. Moskva, 1958. 219 p.

SOV/112-59-1-152

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 1,
pp 16-17 (USSR)

AUTHOR: Makarov, M. M., and Chernyakovskiy, F. P.

TITLE: Dielectric Properties of Friction Rings

PERIODICAL: Uch. zap. Yaroslavsk. tekhnol in-ta, 1957, Vol 2, pp 163-172

ABSTRACT: Dielectric properties of friction-ring material were investigated at 6-23 mc with a moisture content of 1.28-11.8%, in connection with the task of high-frequency drying and curing the rings. The measurements were made by a KV-1 Q-meter with an airgap between the sample and the measuring-capacitor plate. Bibliography: 1 item.

Soviet abstractor's note: The frequency-response characteristics have a sharp peak of permittivity and a dip in the loss angle at 12 mc. This contradicts the physical meaning of the relaxation losses and compels one to look for the cause of these effects in the systematic errors of measurement.

A.V.N.

Card 1/1

S/081/60/000/006/007/008
AG06/AG01

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 6, p. 596, # 24748

AUTHOR: Makarov, M.M.

TITLE: Continuous Vulcanization of Rubberized Cloth

PERIODICAL: Uch. zap. Yaroslavsk. tekhnol. in-ta, 1959, Vol. 3, pp. 213-220

TEXT: Two methods of continuous vulcanizing of rubberized cloth are suggested. By the first method the rubberized layer of the cloth contacts the metallic surface of a rotating drum with a temperature of 230-250°C, and is rapidly heated to 210-220°C (vulcanization time - 15 sec); a smooth surface is obtained by the simultaneous rolling of the cloth to the drum by rollers. Infrared heating at a radiator temperature of 460°C is possible. Vulcanization is completed within 11 sec. Without rolling, the surface is rough and finely porous. The second method consists of two stages: 1) heating by the indicated mode to 150-160°C and 2) winding of the heated cloth onto a second drum and holding for 15 min until completed vulcanization. In both cases the durability of the cotton is not diminished. For the checking of the described methods a laboratory installation was constructed consisting of a steel drum with electric heating, rollers, pressed by

Card 1/2

S/081/60/000/006/007/008
A006/A001

Continuous Vulcanization of Rubberized Cloth

loads against the drum, a winding drum equipped with a heated jacket to preserve the heat (by the second method) and rotated by a motor through a reducer. Shields are mounted to preserve the heat of the cloth during the transfer from one drum to the other. For infrared heating the steel drum is replaced by radiators with a uniform temperature field over the whole surface. The speed of the cloth's motion is regulated by the motor revolutions; the temperature of the cloth and the drum is measured with petalous and bow thermocouples. ✓

M. Monastyrskaya

Translator's note. This is the full translation of the original Russian abstract.

Card 2/2

MAKAROV, M.M., EPSHTEYN, V.G., MAKAROV, V.M.

The new rubber recovery method using a heated air jet.

Report submitted for the 4th Scientific research conference on the Chemistry and technology of synthetic and natural rubber. Yaroslavl, 1962

MAKAROV, M.M.; KUZNETSOV, N.V.

Kinetics of the drying of asbestos paper. Khim. i khim. tekhn.
1:355-362 '62. (MIRA 17:2)

ACCESSION NR: AP4019252

8/0056/64/046/002/0809/0810

AUTHOR: Makarov, M. M.

TITLE: Production of multiply charged particles in interactions between nuclei and 75--350 MeV protons

SOURCE: Zhurnal eksper. i teor. fiz., v. 46, no. 2, 1964, 809-810

TOPIC TAGS: multiply charged particle, multiply charged fragment, nuclear emulsion method, heavy nucleus fragmentation, nuclear cascade, peripheral interaction, Coulomb barrier

ABSTRACT: The production of multiply charged particles or fragments was investigated by the nuclear emulsion method, using a procedure reported earlier (ZhETF v. 45, 56, 1963). The results pertain primarily to the Li and Be fragments from the disintegration of heavy nuclei. A distinct feature of the energy spectra is that the most probable fragment energy is independent of the incident-proton

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ACCESSION NR: AP4019252

energy. The analysis of the results has shown that the experimental characteristics agree with data based on the nuclear-cascade model. The presence of a large number of subbarrier multiply charged particles, due to the preferred production of multiply charged particles on the periphery of the nucleus, is deduced. It is therefore concluded that subbarrier multiply charged particles can serve as indicators for the diffuse surface of the nucleus. Orig. art. has: 2 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR
(Physicotechnical Institute AN SSSR)

SUBMITTED: 26Jul63

DATE ACQ: 27Mar64

ENCL: 02

SUB CODE: PH

NO REF SOV: 001

OTHER: 000

Card 2/A 2

ZHIRNOV, F.D., inzh.; MAYSKIY, N.I., dots.; MAYSKIY, V.N., inzh.;
TOCHILINA, L.V., red.; MAKALOV, M.M., nauchn. red.

[Principles of electrical engineering and the electrical
equipment of tractors, combines, and motor vehicles] Osnovy
elektrotekhniki i elektrooborudovanie traktorov, kombainov
i avtomobilei. Moskva, Vysshaya shkola, 1962. 214 p.
(DE.A. 10)

PERFILOV, N.A.; IVANOVA, N.S.; LOZHKIN, O.V.; MAKAROV, M.M.; OSTROUMOV, V.I.;
SOLOV'YEVA, Z.I.; SHAMOV, V.P.

Fragmentation of Ag and Br nuclei by 9 Bev. protons. *Zhur.eksp.i*
teor.fiz. 38 no.2:345-350 F '60. (MIRA 14:5)

1. Radiyevyy institut Akademii nauk SSSR.
(Protons) (Nuclear reactions)

MAKAROV, M.M.; PERFILOV, N.A.

Fragmentation on light nuclei. Dokl. AN SSSR 138 no.3:579-580 My
'61. (MIRA 14:5)

1. Radiyevyy institut im. V.G.Khlopina AN SSSR. Predstavleno
akademikom B.P.Konstantinovym.
(Nuclear reactions)

DAROVSKIKH, V.F.; MAKAROV, M.M.; OSTROUMOV, V.I.

Observation of the decay of a B^0 nucleus in a nuclear emulsion.
Dokl. AN SSSR 141 no.3:593-594 N '61. (MIRA 14:11)

1. Radiyevyy institut im. V.G. Khlopina AN SSSR. Predstavleno
akademikom B.P. Konstantinovym.
(Particle track photography)

MAKAROV, M.

"Sirius," the little sun. Tekh.mol. 30 no.1:1-2 '62. (MIRA 15:2)
(Electric discharge lighting)

S/056/63/044/001/014/067
B108/B180

AUTHORS: Lepekhin, P. G., Makarov, M. M.

TITLE: Search for angular correlations in stars with fragments produced by 9-Bev protons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 1, 1963, 68 - 70

TEXT: Fragments and nucleons emerging from processes that follow the laws of conservation should show angular correlations. To establish this, the authors examined the angular distributions of the "black" and "gray" traces of ordinary nuclear fission events, and of the products of fragmentation released by 9-Bev protons in nuclear emulsions. About 7000 angles were measured on an МИГЭ-1 (MICE-1) microscope. Each star had an average of 12.5 prongs (excluding fragments). The angular distribution of the "black" traces was isotropic in relation to the traces of the fragments. The distribution of "black" traces in stars with fragments was the same as in ordinary stars. There are 2 figures. ✓

Card 1/2

Search for angular correlations ...

S/056/63/044/001/014/067
B108/B180

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe Akademii
nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of
the Academy of Sciences USSR)

SUBMITTED: July 17, 1962

Card 2/2

L 17612-63

EWI(m)/BDS

AFTC/ASD

S/O56/63/044/003/029/053

52
51

AUTHOR:

Makarov, M. M.

TITLE:

Calculation of the energy and angular characteristics of
multicharged particles produced by high energy protons

PERIODICAL:

Zhurnal eksperimental'noy i tekhnicheskoy fiziki, v. 44, no. 3,
1965, 962-968

TEXT: Brueckner's so-called "cluster" model of the nucleus foresaw the possibility of strong correlations among the nucleons leading to the formation of shortlived substructures. Consequently, during the interactions of high energy particles with the nuclei one must take into account not only the nucleon-nucleon collisions but also the nucleon-deuteron, nucleon-Li, d-d, α -d, α - α , etc. collisions. One must emphasize that within the nucleus the collisions are basically of the nucleon-nucleon type, and, therefore, the calculated results using the Serber-Goldberger scheme and considering only the nucleon-nucleon interaction in general agree with experiments. However, to investigate finer effects during interactions of high energy particles with nuclei, one must calculate the cascades within the nucleus,

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L 17612-63

8/056/63/044/003/029/033 /

Calculation of the energy...

taking into account various subgroups of the nucleus, assigning to their existence, in one way or the other, certain probabilities, and assuming momentum distributions for each subgroup of the nucleus. To be able to discuss various experimental results and to obtain certain characteristics of the quasi-elastic knocking-off of multicharged particles, the author carried out this kinematical calculation using an electronic computer for the evaluation of the energy spectra of multicharged particles emitted at a given angle and their angular correlations with the scattered protons. The dependence of these characteristics on the proton beam energy, momentum distribution in the nucleus, emission angle, binding energy, and mass of the multicharged particles is investigated. The results of the calculations are compared with the experimental data and it is shown that the presently developed cascade theory agrees with the experiments. There are 8 figures.

ASSOCIATION: Fiziko-tekhnicheskii institut im. A. P. Ioffe Akademii nauk SSSR
(Physics-Technical Institute im. A. P. Ioffe of the AS USSR)

SUBMITTED: September 25, 1962

Card 2/2

L 16905-63

EMT(1)/EMT(m)/BDS/EEC(b)-2/ES(w)-2 AFTTC/ASD/ESL-3/AFML/

IJP(C)/SSD P1-4/Po-4/Pab-4

ACCESSION NR: AF3005244

8/0056/63/045/002/0056/0063

AUTHOR: Nakagawa, K. M.

81
75

TITLE: Angular dependences in the production of multiply charged particles by protons of energy 75-350 MeV

SOURCE: Eur. J. Nucl. Sci. Technol., v. 43, no. 2, 1963, 56-63

TOPIC TAGS: multiply charged particles, angular distribution, nucleus nucleus interaction, intranuclear cascade, quasi elastic scattering

ABSTRACT: The angular distributions of secondary multiply-charged particles and fast protons from a synchrocyclotron were measured relative to incident beams of 76-, 100-, 200-, and 350-MeV protons in order to ascertain the production mechanism of the multiply-charged particles from interactions between high-energy nucleons and nuclei. The conventional Monte-Carlo calculation of the intranuclear cascade and the quasi-elastic ejection calculation are compared with the experimental angular distributions of the fast protons relative to the beam, with the correlations between the fast protons and the multiply-charged particles, and with the dependences of these correlations on the emission angle and beam energy. The

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L 16905-63

ACCESSION NO: AP005244

6

comparison indicates that for 70-100 MeV protons the multiply charged particles are produced through quasi-elastic scattering of the bombarding protons on instantaneous nuclear substructures. An indication is obtained that the intranuclear momentum distribution of the multiply-charged particles is Gaussian. "The author wishes to thank Professor A. P. Komar, P. G. Lenehkin, and O. V. Loshkin for their interest and for discussions of the results, L. N. Ikon for measurements and treatment of the experimental data, and L. V. Morozova for scanning the emulsions." Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskii institut im. A. F. Ioffe Akademii nauk SSSR (A. F. Ioffe Physicochemical Inst. Acad. Sci. USSR)

SUBMITTED: 07Feb63

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: PH

NO REF SOV: 006

OTHER: 003

2/2

MAKABU, M.C.

Production of the film "The Makabu
between the Makabu and the Makabu
to the Makabu and the Makabu

to the Makabu and the Makabu

LEPEKHIN, F.G.; MAKAROV, M.M.; TKACH, L.N.

Applicability of the evaporation theory in describing the
emission of multiply charged particles from heavy nuclei.
IAd. fiz. 1 no.6:987-993 Je '65. (MIRA 18:6)

1. Fiziko-tekhnicheskiy institut imeni Ioffe AN SSSR.

MAKAROV, M.N., mayor

In training it is as it was in combat. Vest.protivovozd.obor.

no.10:65-67 0 '61.

(MIRA 15:2)

(Radar, Military)

MAKAROV, M.; STEPANOV, A., red.; LITVINOV, I., tekhnred.

Alupka-Simeis. Simferopol', Krymizdat, 1954, 176 p.

(MIRA 13:5)

(ALUPKA)

(SIMEIS)

ALYAB'YEV, N.M.; VYSOTSKIY, K.K.; MAKAROV, M.N.; TKACHENKO, A.A.;
KOSYACHENKO, P.I., red.; ~~FISCHKO, A.T.~~, tekhn.red.

[In the mountains and forests of the Crimea; a guidebook to
the V.V.Kuibyshev State Forest in the Crimea.] V gorakh i
lesakh Kryma; putevoditel' po zapovedniku. Simferopol',
Krymizdat, 1957. 109 p. (MIRA 11:1)

1. Krynskiy gosudarstvennyy zapovednik im. V.V.Kuibysheva.
(Crimea--National parks and reserves)

MAKAROV, Mikhail Nikitovich; YARMYSH, Yu., red.; ISUPOVA, N., tekhn. red.

[Gurzuf; study and guide book] Gurzuf; ocherk-putevoditel'. Sim-
feropol', Krymizdat, 1961. 83 p. (MIRA 14:12)
(Gurzuf—Description)

MAKAROV, M.P.

Use of gypsum M 400 (highly durable) in surgical practice. Khirurgia,
Moskva no.3:61-63 Mar 51. (CLML 20:7)

1. Lt. Col., Medical Corps.

SOROKINA, V. I.; MAKAROV, M. P.

Treatment of pulmonary suppurative processes with penicillin
administered by tracheal puncture. Sovet. med. 16 no.5:36-37
May 1952. (CJML 22:2)

1. Of the Hospital Therapeutic Clinic (Head -- Prof. A. I.
Germanov) and of the Hospital Surgical Clinic (Head -- Prof. A.
M. Aminev), Kuybyshev Medical Institute.

MAKAROV, M.P., dotsent.

**Therapy of endarteritis obliterans (thromboangitis) with intra-
arterial administration of novocaine. Khirurgiia no.11:49-52 N '53.
(MLRA 6:12)**

**1. Is kafedry gosital'noy khirurgii (direktor - professor A.M.Aminev)
Knyazhevskogo meditsinskogo instituta.
(Novocaine) (Arteries--Diseases)**

KLIMOV, K.M., professor, laureat Stalinskoy premii; SMIRNOV, Ye. professor;
KIRILLOV, B.K., professor, FAYVISHENKO, E.L., professor, MUKHIN, M.V.
professor; BAL', professor, NORENBURG-CHARKVIANI, A.Ye., doktor me-
ditsinskikh nauk; SAKHAROV, M.I., doktor meditsinskikh nauk; MAKAROV,
M.P., dotsent; BUTKOVA, N.I., dotsent; SHELOMOVA, T.P., kandidat
meditsinskikh nauk; RAKITINA, L.N., kandidat meditsinskikh nauk;
KAMPEL' MAKHER, Ya.A., kandidat meditsinskikh nauk.

Forty years of Professor A.T.Lidskii's scientific, medical and
pedagogical activities. Khirurgiia no.6:82-83 Je '55 (MLRA 8:10)
(LIDSKII, ARKADII TIMOFEEVICH)

MAKAROV, M.P., dotsent

Congenital gigantic multilocular cyst of the pancreas. Khirurgiia
no.10:88 0 '55. (MLRA 9:2)

1. Is gosital'noy khirurgicheskoy kliniki Kuybyshevskogo meditsinskogo
instituta.

(PANCREAS--TUMORS) (CYSTS)

MAKAROV, M.P., dots.

Early diagnosis of ankylosing spondylarthritis. Sov.med. 22 no.7:
78-82 J1 '58 (MIRA 11:10)

1. Is Sverdlovskogo instituta vosstanovitel'noy khirurgii, travmatologii
i ortopedii (dir. - chlen-korrespondent Akademii meditsinskikh
nauk SSSR F.R. Bogdanov) i is gosspital'noy khirurgicheskoy kliniki
(sav. - prof. A.I. Aminev) Knybyshevskogo meditsinskogo instituta
(SPONDYLITIS, ANKYLOSING, diag.
early (Rus))

MAKAROV, M.P., dotsent

Role of blood tests in patients with ankylosing spondylitis.
Khirurgiya 36 no.11:128-131 N '60. (MIRA 13:12)

1. Iz kafedry gosital'noy khirurgii (zav. - prof. A.M. Aminov)
Kuybyshevskogo meditsinskogo institut i Sverdlovskogo nauchno-
issledovatel'skogo instituta travmatologii i ortopedii.
(SPINE—DISEASES) (BLOOD PROTEINS)

ARENDR, A.A., prof.; ARKHANGEL'SKIY, V.V., kand. med. nauk; BOGDANOV, F.R., prof.; BONDARCHUK, A.V., prof.; KOPYLOV, M.B., prof.; KORNEV, P.G., zasl. deyatel' nauki RSFSR, prof.; KUSLIK, M.I., prof.; LEYBZON, N.D., doktor med. nauk; MAKAROV, M.P., kand. med. nauk; NIKOL'SKIY, V.A., prof.; PODOLNIN, N.A., doktor med. nauk; RAZDOL'SKIY, I.Ya., prof. [deceased]; ROSTITSKAYA, V.I., kand. med. nauk; TIMSKOY, V.A., kand. med. nauk; UGRYUMOV, V.M., prof.; FISHKIN, V.I., kand. med. nauk; KHRAPOV, V.S., kand. med. nauk; CHIKOVANI, K.P., prof. [deceased]; SHLYKOV, A.A., prof.; PETROVSKIY, B.V., prof. zasl. deyatel' nauki RSFSR, otv. red.; YEGOROV, B.G., zasl. deyatel' nauki RSFSR prof., red. toma; MIRONOVICH, N.I., doktor med. nauk, zam. red.; PARAKHINA, N.L., tekhn. red.

[Manual on surgery] Mnogotomnoe rukovodstvo po khirurgii. Moskva, Medgiz. Vol.4. [Neurosurgery; the sequelae of lesions of the central nervous system. Diseases of the spine, the spinal cord and its membranes. Diseases of the vegetative nervous system] Neirokhirurgiia; posledstviia povrezhdenii tsentral'noi nervnoi sistemy. Zabolevaniia pozvonochnika, spinного mozga i ego obolochek. Zabolevaniia vegetativnoi nervnoi sistemy. 1963. 667 p. (MIRA 16:10)

1. Deystvitel'nyy chlen AMN SSSR (for Petrovskiy, Yegorov, Kornev). 2. Chlen-korrespondent AMN SSSR (for Bogdanov).
(NERVOUS SYSTEM—SURGERY) (SPINE—SURGERY)

MAKAROV, M.P., prof.; GOLOVANOV, A.M., ordinator.

Importance of using the tracheotomy in the surgical treatment
of patients. Sov. Med. 27 no.7:21-27 J1'63. (MIRA 16:9)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - prof. M.P.Makarov)
Kuybyshevskogo meditsinskogo instituta.
(TRACHEA—SURGERY)

MAKAROV, M.P., dotsent (Kuybyshev, obl., 1, Sadovaya ul., d.208,kv.5)

Myxomas of the retroperitoneal-pelvic-perineal region. Vest.
khir. 70 no.6:121-123 Je'63 (MIRA 16:12)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (ispolnyayushchiy
obyazannosti zaveduyushchego - dotsent M.P.Makarov) Kuyby-
shevskogo meditsinskogo instituta.

INSTITUTE OF THE THEORY AND HISTORY OF PEDAGOGY. MOSCOW, 1961.

MAKAROV, M. P. -- "Mikhailovskiy, M. P. and the formation of the
Chuvash." Academy of Pedagogical Sciences of the USSR. Science Section.
Institute of the Theory and History of Pedagogy. Moscow, 1961.
(Dissertation for the Degree of Candidate in Pedagogical Sciences.)

So; Kniznaya Letopis' 1961,